



Men Who Have Sex with Men

June 2007

Introduction

The HIV/AIDS epidemic was first recognized among men who have sex with men (MSM). Although the overall number of cases attributed to male-to-male sex each year has decreased over time, it is the predominant reported mode of exposure in Massachusetts among people recently diagnosed with HIV infection. Male-to-male sex (including male-to-male sex/injection drug use) accounts for the largest proportion (34%) of HIV exposure among people diagnosed with HIV infection within the three-year period 2003 to 2005. Among all people living with HIV/AIDS on December 31, 2005, male-to-male sex (including male-to-male sex/injection drug use) accounts for 33% of reported exposures.

General Statistics:

- Within the three-year period 2003 to 2005, 974 of the people diagnosed with HIV infection were men who have sex with men, accounting for 36% of all reported cases and 51% of HIV infection among men in Massachusetts. Of the 974 HIV-infected MSM, 6% (N=58) also have reported injecting drugs.
- On December 31, 2005, there were 5,834 men living with HIV/AIDS in whom HIV infection was attributed to male-to-male sex, representing 36% of all people living with HIV/AIDS in Massachusetts, and 51% of men living with HIV/AIDS. Of these 5,834 men, 9% (N=509) also reported injecting drugs.

Regional Distribution:

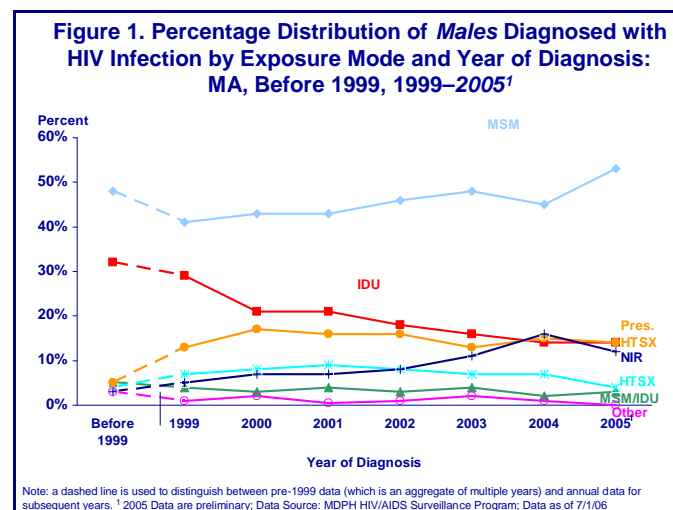
Male-to-male sex is the most frequently reported mode of exposure in the Boston, Metrowest, Northeast and Southeast Health Service Regions among both people recently diagnosed with HIV infection and those living with HIV/AIDS.

Among cities with over 20 people diagnosed with HIV infection within the three-year period 2003 to 2005, the following have the highest proportions of persons whose HIV infection is attributed to male-to-male sex (N=number of HIV-infected men reported to be MSM):

• Provincetown	91%	(N=19)
• Medford	66%	(N=21)
• Somerville	49%	(N=27)
• Quincy	48%	(N=12)
• Boston	46%	(N=368)
• Cambridge	45%	(N=28)
• Revere	42%	(N=14)
• Chelsea	40%	(N=10)
• Fall River	33%	(N=11)
• Malden	29%	(N=12)

Diagnosis of HIV Infection over Time

The proportion of men diagnosed with HIV infection who were reported to have engaged in male-to-male sex (not including those with a history of injection drug use) rose from 41% in 1999 to 53% in 2005.



Race/Ethnicity:

- The distribution of race/ethnicity of MSM diagnosed with HIV infection within the three-year period 2003 to 2005 was:
 - 68% white (non-Hispanic)
 - 14% black (non-Hispanic)
 - 16% Hispanic
 - 2% other
- Of all men recently diagnosed with HIV infection attributed to male-to-male sex, the majority (68%) is white (non-Hispanic). Among men recently diagnosed with HIV infection and exposed through other modes, the largest proportions are black (non-Hispanic) (38%), and Hispanic (32%).
- The distribution of race/ethnicity among MSM living with HIV/AIDS is similar to that among MSM recently diagnosed with HIV infection: 73% percent are white (non-Hispanic), 12% are black (non-Hispanic), 13% are Hispanic, and 2% are of other race/ethnicity.

Age at HIV Diagnosis:

- Eight percent (N=82) of MSM diagnosed with HIV infection within the three-year period 2003 to 2005 were diagnosed during adolescence (13-24 years), as compared to 4% (N=38) of men reportedly exposed by other means.
- The proportion of adolescent MSM recently diagnosed with HIV infection varies by race/ethnicity, with 20% (N=26) of black (non-Hispanic) MSM and 11% (N=16) of Hispanic MSM with HIV infection diagnosed between the ages of 13 and 24 years compared to 6% (N=36) of HIV-infected white (non-Hispanic) MSM.
- Eighteen percent of MSM recently diagnosed with HIV infection were in their 20s, 41% in their 30s, 29% in their 40s, and 10% at the age of 50 years or older.

Risk of HIV Infection:

Behavioral Risk: According to behavioral surveys, MSM in Massachusetts are engaging in behaviors that put them at risk for HIV infection.

- From 2000 to 2005, the proportion of male respondents to the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS) reporting sex with males in the past 12 months ranged from 3.1% to 6.8%.
- The proportion of BRFSS respondents reporting male-to-male sex who used a condom at last sexual encounter increased from 34% in 2000 to 46% in 2002, decreased to 39% in 2003, and then increased to 56% in 2005 (see note below).
- Forty-four percent of respondents to the 2004 and 2005 BRFSS who reported male-to-male sex reported two or more sex partners compared to 14% of male respondents with exclusively female sex partners.
- Fifty-two percent of respondents to the 2004 and 2005 BRFSS who reported male-to-male sex reported condom use at last sexual encounter compared to 25% of male respondents with exclusively female sex partners.
- From 1993 to 2005, the proportion of male respondents to the Massachusetts Youth Risk Behavior Survey (YRBS) reporting male to male sex at any point in their lifetime ranged from 2.5% to 4.9%.
- Among high school-aged respondents to the 2005 YRBS reporting male-to-male sex:
 - 57% used a condom at last intercourse compared to 73% of sexually active males with only female partners;
 - 35% reported alcohol/drug use at last intercourse compared to 26% of other sexually active males;
 - 38% reported having four or more lifetime sexual partners compared to 24% of other males;
 - 13% reported having ever been diagnosed with an STD compared to 6% of other males; and

- 25% reported having sexual intercourse before age 13 compared to 13% of other males.

Note: The statistics above should be interpreted with caution due to the small sample sizes (see detailed data tables for sample size by question).

Syphilis Incidence: Recent outbreaks of syphilis among MSM in Massachusetts are a potential indicator of unprotected sex and elevated risk for HIV infection.

- The number of infectious syphilis cases reported in MSM increased over four-fold during the five-year period from 2000 (N=33) to 2005 (N=159).
- The proportion of MSM among reported infectious syphilis cases increased from 23% in 2000 to 72% in 2005.
- From 2001 to 2005, the proportion of reported infectious syphilis cases among MSM who were also living with HIV infection increased from 12% to 52%.

State-Funded HIV Counseling and Testing:

- Of 44,960 publicly funded HIV tests performed in 2005, 9% (N=4,479) were among men reporting sex with men, of which 3.2% were positive.

HIV Related Morbidity and Mortality among Men Who Have Sex with Men:

AIDS Diagnoses over Time

- The proportion of MSM among reported AIDS diagnoses (including those who injected drugs) declined from 33% in 1996 to 24% in 2000. From 2001 to 2005, men who have sex with men increased from 26% to 31% of people diagnosed and reported with AIDS.

Mortality with AIDS

- From 1996 to 2005, the proportion of AIDS deaths among MSM (including those who injected drugs) decreased from 33% to 15% of all people with AIDS.

Data Sources:

HIV/AIDS Case Data: Massachusetts Department of Public Health (MDPH) HIV/AIDS Surveillance Program; data as of July 1, 2006

Behavioral Risk Factor Surveillance Survey Data: MDPH Bureau of Health Statistics, Research and Evaluation, Behavioral Risk Factor Surveillance System

Youth Risk Behavior Survey Data: Massachusetts Department of Education, Youth Risk Behavior Survey

Syphilis Data: MDPH Division of Sexually Transmitted Disease Prevention

HIV Counseling and Testing Data: MDPH HIV/AIDS Bureau, Office of Research and Evaluation

Additional References of Interest:

Calzavara L, Burchell AN, Remis RS, Major C, Corey P, Myers T, Millson M, Wallace E. Delayed Application of Condoms Is a Risk Factor for Human Immunodeficiency Virus Infection Among Homosexual and Bisexual Men. *American Journal of Epidemiology*. 2002;157:210-217

Centers for Disease Control and Prevention. Trends in Primary and Secondary Syphilis and HIV Infections in Men Who Have Sex with Men — San Francisco and Los Angeles, California, 1998–2002. *MMWR*. 2004;53:575-578

Centers for Disease Control and Prevention. High-Risk Sexual Behavior by HIV-Positive Men Who Have Sex with Men —16 Sites, United States, 2000–2002. *MMWR*. 2004;53:891-894

Colfax G, Vittinghoff E, Husnik MJ, McKirnan D, Buchbinder S, Koblin B, Celum C, Chesney M, Huang Y, Mayer K, Bozeman S, Judson FN, Bryant KJ, Coates TJ; EXPLORE Study Team. Substance use and sexual risk: a participant- and episode-level analysis among a cohort of men who have sex with men. *Am J Epidemiol*. 2004 May 15;159(10):1002-12

Seiple, SJ, Patterson TL, Grant I. Binge Use of Methamphetamine Among HIV-Positive Men Who Have Sex with Men: Pilot Data and HIV Prevention Implications. *AIDS Education and Prevention*. 2003;15:133-147.

For more detailed information and a description of data limitations, please see “HIV/AIDS in Massachusetts: An Epidemiologic Profile,” available online at www.mass.gov/dph/aids